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Natural Resources Conservation Service
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Technical Note 80

Crawfish

Crawfish Fact Sheet 2

Where To Get Help

For more information about types of crawfish ponds, contact your local Natural Resources Conservation Service.

Types of Crawfish Ponds

Permanent Crawfish Ponds

The three principal types of permanent ponds include single crop ponds, naturally vegetated ponds and wooded ponds.

Single Crop Crawfish Pond

These ponds are constructed and managed solely for the purpose of cultivating crawfish. During the summer (May-August), a forage crop is allowed to grow. Crawfish can be harvested in single crop ponds one to two months longer than rotational systems because there is no overlap with planting, draining and harvesting schedules of other crops. Pond design is often optimized to improve production by using baffle levees and re-circulation systems.

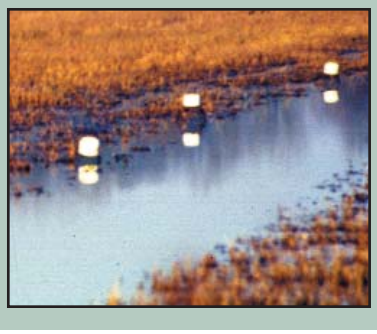
Naturally Vegetated Ponds

This term refers to marsh impoundments and agricultural lands that are managed to encourage the growth of naturally occurring vegetation. These are typically constructed in wetland areas containing high amounts of organic matter in the soil. This often lowers water quality, decreasing crawfish production. Although these ponds may be managed exclusively for crawfish, production is often sporadic.

Wooded Ponds

These ponds are typically built on heavy clay soils in forested (cypress-tupelo swamp) areas. Crawfish production is limited by the inability to manage water effectively. Wooded ponds have poor stands of vegetated forage and water temperatures also tend to be lower because of shading. Leaf litter provides the bulk of forage, but rapid leaf fall can cause poor water quality. Water flow and crawfish harvest are difficult because trees hinder water movement and obstruct boat access. Some positive aspects of wooded ponds include low initial start-up costs and the potential for waterfowl hunting.

The life cycle of crawfish (*Procambarus clarkii* and *P. zonangulus*) can be manipulated to fit a variety of management requirements and can be integrated into an agronomic crop rotation. There are two basic types of crawfish ponds: permanent and rotational. Permanent ponds are described by having a continuous management scheme applied year after year. Rotational refers to the practice of rotating the annual sequence of crops grown in the pond or rotating the physical location of the pond to another field. This jobsheet reviews basic types of crawfish production ponds and associated management requirements.



The following crawfish culture cycle is applicable to each of the three pond types.

Crawfish Culture Cycle

April-May: Stock 50-60 pounds of adult crawfish per acre (new ponds only)

May-June: Drain pond over 2-4 week period

June-August: Plant crawfish forage crop or manage natural vegetation

October: Re-flood pond (based on air temperature)

November-May/June: Harvest crawfish

May/June: Drain pond and repeat cycle without restocking crawfish

Rotational Crawfish Ponds

The most common crawfish-agronomic crop rotations are rice-crawfish-rice, rice-crawfish-soybeans, rice-crawfish-fallow and field rotation. In the rice-crawfish-rice rotation, rice and crawfish are double cropped annually. In the rice-crawfish-soybeans rotation, farmers have the opportunity to produce an additional grain crop during the rotation. In the rice-crawfish-fallow rotation, farmers can leave the field fallow for the control of weeds and crawfish overpopulation. In the field rotation culture system, crawfish and an agronomic crop are rotated in the same field for a certain number of years.

Rice-Crawfish-Rice Ponds

Rice fields offer the most readily adaptable area for expanding crawfish culture. Rice farmers are capable of using the same land, equipment, pumps and farm labor already in place. After the grain is harvested, the remaining stubble is fertilized, flooded and allowed to re-grow (ratoon). This ratoon crop serves as a forage base for crawfish. Total production is sometimes decreased because rice culture practices take precedence over crawfish production. Problems include conflicts regarding pesticide use and poor water circulation. Ponds are usually drained early (March 1 - April 1) to replant rice. This greatly shortens the crawfish harvest season and the potential crawfish yield.

March-April
Plant rice
June
At permanent rice flood (rice 8-10 inches high), stock 50 to 60 pounds of adult crawfish per acre.
August
Drain pond and harvest rice (later in north Louisiana)
October
Re-flood rice field
November-April
Harvest crawfish
March-April
Drain pond and replant rice

Rice-Crawfish-Soybeans

This rotation allows for the production of three crops in two years. It also has the advantage of a longer crawfish harvest season than the rice-crawfish-rice rotation. Pesticide use is an important management consideration.

March-April
Plant rice
June
Stock 50 to 60 pounds of adult crawfish per acre at permanent flood
August
Drain field and harvest rice
October
Re-flood rice field
November-May
Harvest crawfish
Late May-June
Drain pond and replant soybeans
October-November
Harvest soybeans
November-March
Re-flood pond and harvest crawfish
March -April
Plant rice (restocking crawfish is probably necessary)

Rice-Crawfish-Fallow

This rotation allows the farmer to leave the land fallow for a certain period. This is a common practice in the rice-producing region in southwest Louisiana. This fallow period allows the farmer to break the cycle of certain weeds and also prevents the overpopulation of crawfish.

March-April
Plant rice
June
Stock 50 to 60 pounds of adult crawfish per acre at permanent flood
August
Drain field and harvest rice
October
Re-flood rice field
November-June/July
Harvest crawfish
July
Drain pond
August-March
Fallow
March-April
Plant rice

Field Rotation

After several years in production, rotational ponds may develop stunted crawfish populations from over population. One method of overcoming this problem is to rotate the location in which the crawfish are grown. Once a stunting problem has been verified, mature crawfish from the affected pond may be used to stock a new pond that will be used in a crawfish-agronomic rotation. The affected pond is simply left dry during the normal part of the cycle that crawfish would be harvested. By reducing the density of reproducing females, stunting is reduced.

References

i. 1996. Louisiana State University Agricultural Center, Louisiana Cooperative Extension Service. Crawfish Production Manual. Publication 2637.
ii. 1990. Louisiana State University Agricultural Center, Louisiana Cooperative Extension Service. Southern Regional Aquaculture Center. Crawfish Production Systems. Publication 2424
iii. 1990. Louisiana State University Agricultural Center, Louisiana Cooperative Extension Service. Southern Regional Aquaculture Center. Crawfish Production Systems. Publication 2426
iv. 1976 Louisiana Wild life and Fisheries Commission. Crawfish Farming.